

WHAT IS CLAIMED IS:

1. An image processing apparatus for compressing input image data and outputting the compressed data, said image processing apparatus comprising:

a memory that stores input still-image data and outputs the stored still-image data continuously for a predetermined period of time;

compressing means for compressing input motion-picture data, or the still-image data output from said memory continuously for the predetermined period of time, using the same compression technique; and

control means for controlling said compressing means so as to compress the motion-picture data and the still-image data by different quantization processes.

2. An image processing apparatus according to Claim 1, wherein said compressing means performs at least inter-frame coding.

3. An image processing apparatus according to Claim 2, wherein said control means controls said compressing means so that a smaller quantization step is used to compress the still-image data than the quantization step used to compress the motion-picture data.

4. An image processing apparatus according to Claim 2, wherein said compressing means includes quantization means for performing quantization based on the product of a quantization matrix and a quantization characteristic value.

5. An image processing apparatus according to Claim 4, wherein said quantization means quantizes the still-image data using a quantization characteristic value having a smaller step than the step of a quantization characteristic value used to quantize the motion-picture data.

6. An image processing apparatus according to Claim 4, wherein said quantization means quantizes the still-image data using a quantization matrix different from a quantization matrix used to quantize the motion-picture data.

7. An image processing apparatus according to Claim 2, further comprising motion compensation prediction means for performing motion compensation prediction for inter-frame coding,

wherein, when the still-image data is compressed, said control means controls the motion compensation prediction means so as to suppress or prohibit the occurrence of motion vectors for motion compensation prediction.

8. An image processing apparatus according to Claim 1, further comprising:

recording means for recording the motion-picture data or still-image data compressed by said compressing means; and

identification information adding means for adding identification information for identifying the still-image data to the recorded still-image data when the compressed still-image data is recorded in said recording means.

9. An image processing apparatus according to Claim 8, further comprising instructing means for instructing still image recording, wherein said control means, said identification information adding means, and said recording means perform a still image recording operation according to an instruction from said instructing means.

10. An image processing apparatus for compressing ☒ input image data and outputting the compressed data, said image processing apparatus comprising:

a memory that stores input still-image data and outputs the stored still-image data continuously for a predetermined period of time;

compressing means for compressing input motion-picture

data, or the still-image data output from said memory continuously for the predetermined period of time, using at least an inter-frame coding compression technique; and

control means for controlling a direction of prediction of the inter-frame coding in said compressing means when the still-image data is compressed.

11. An image processing apparatus according to Claim 10, wherein, when the still-image data is compressed, said control means controls said compressing means so that a frame coding unit at which processing of the still-image data starts is not predicted from an immediately preceding frame coding unit.

12. An image processing apparatus according to Claim 11, further comprising motion compensation prediction means for performing motion compensation prediction of inter-frame coding,

wherein the still-image data has a frame structure, and frame prediction is performed.

13. An image processing apparatus for compressing ¹ input image data and outputting the compressed data, said image processing apparatus comprising:

resolution converting means for converting a resolution

of the input image data;

a memory that stores still-image data output from said resolution converting means and outputs the stored still-image data continuously for a predetermined period of time;

compressing means for compressing motion-picture data output from said resolution converting means, or the still-image data output from said memory continuously for the predetermined period of time, using at least an inter-frame coding compression technique; and

control means for activating said resolution converting means when the motion-picture data is compressed, and for deactivating or suppressing the operation of said resolution converting means when the still-image data is compressed.

14. An image processing apparatus according to Claim 13, further comprising motion compensation prediction means for performing motion compensation prediction for inter-frame coding,

wherein said control means controls said motion compensation prediction means so as to suppress or prohibit the occurrence of motion vectors for motion compensation prediction when the still-image data is compressed.

15. An image processing apparatus for compressing input image data and outputting the compressed data, said

image processing apparatus comprising:

a memory that stores input still-image data and outputs the stored still-image data continuously for a predetermined period of time;

compressing means for compressing input motion-picture data, or the still-image data output from said memory continuously for the predetermined period of time, using at least an inter-frame coding compression technique; and

control means for controlling said compressing means so as to compress the motion-picture data and the still-image data by different operations,

wherein said compressing means includes quantization means, and said control means controls said compressing means so that said quantization means uses a variable quantization characteristic value when the motion-picture data is compressed and uses a constant quantization characteristic value when the still-image data is compressed.

16. An image processing apparatus according to Claim 15, further comprising a memory that stores the quantization characteristic value used to compress the still-image data.

17. An image processing apparatus according to Claim 15, further comprising motion compensation prediction means for performing motion compensation prediction for inter-

frame coding,

wherein said control means controls said motion compensation prediction means so as to suppress or prohibit the occurrence of motion vectors for motion compensation prediction when the still-image data is compressed.

18. A recording apparatus for compressing input image data and recording the compressed data, said recording apparatus comprising:

a memory that stores input still-image data and outputs the stored still-image data continuously for a predetermined period of time;

compressing means for compressing input motion-picture data, or the still-image data output from said memory continuously for the predetermined period of time, using at least an inter-frame coding compression technique;

recording means for recording the motion-picture data or still-image data compressed by said compressing means; and

control means for controlling said compressing means so as to perform different compression operations, and controlling said recording means so as to perform different recording operations when the motion-picture data is recorded and when the still-image data is recorded.

19. An image processing apparatus according to Claim 18, further comprising identification information generating means for generating identification information for identifying the still-image data when the still-image data is recorded.

20. An image processing apparatus according to Claim 19, wherein said control means controls said recording means so as to record the compressed motion-picture data when the motion-picture data is recorded, and controls said recording means so as to record the compressed still-image data and the identification information generated by said identification information generating means when the still-image data is recorded.

21. An image processing apparatus according to Claim 19, further comprising instructing means for instructing still image recording,

wherein said control means, said identification information generating means, and said recording means perform a still image recording operation according to an instruction from said instructing means.

22. An image processing apparatus according to Claim 18, wherein said compressing means includes quantization

means for performing quantization based on the product of a quantization matrix and a quantization characteristic value.

23. An image processing apparatus according to Claim 22, wherein said quantization means quantizes the still-image data using a quantization characteristic value having a smaller step than the step of a quantization characteristic value used to quantize the motion-picture data.

24. An image processing apparatus according to Claim 23, wherein said quantization means quantizes the still-image data using a quantization matrix different from a quantization matrix used to quantize the motion-picture data.

25. An image processing apparatus according to Claim 18, further comprising motion compensation prediction means for performing motion compensation prediction for inter-frame coding,

wherein said control means controls said motion compensation prediction means to suppress or prohibit the occurrence of motion vectors for motion compensation prediction when the still-image data is compressed.